

ABSTRACT OF THE DISCLOSURE

A high-strength carburized part comprising a core having a chemical composition of C: 0.15 to 0.30% by weight, Si: 0.25 to 1.10% by weight, Mn: 0.3 to 1.20% by weight, Cr: 1.25 to 2.0% by weight and a balance including unavoidable impurities and Fe, a vacuum-carburized surface having a carbon ratio ranging from 1.0 to 1.5%, a region extending from the surface to a depth of 50 μm and having a grain boundary oxide layer with a depth of 1 μm or less, wherein a area ratio of carbides of said surface is from 5 to 15% and at least 90% of carbides have a grain size of 5 μm or less, wherein the core comprises an interior region which cannot be carburized.